

The Body Remembers

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To ask how the mind communicates with the body, or how the body communicates with the mind assumes that the two are separate entities. My experience has shown me that they are a single unit. The body is not just a reflection of the personality; it is the personality.

Therefore mind-body awareness are two sides of the same coin, different aspects of the same spectrum, immutably joined, inseparable, connected, influencing, and communicating constantly. Myofascial release techniques and myofascial unwinding allow for the complete communication necessary for healing and true growth. I believe that the body remembers everything that ever happened to it.

The link between mind-body awareness and healing is the concept of state-dependent memory, learning, and behavior (also called *deja vu*). We have all experienced this, for example, when a certain smell, or the sound of a particular piece of music creates a flashback phenomenon, producing a visual, sensorimotor replay of a past event or important episode in our lives with a vividness as if it were happening at that moment. I would like to expand this theory to include position-dependent memory, learning, and behavior, with the structural position being the missing component in the state-dependent theory.

Studies have shown that during periods of trauma people make indelible imprints of experiences that have high levels of emotional content. The body can hold information below the conscious level, as a protective mechanism, so that memories

tend to become dissociated or amnesic. This is called memory dissociation, or reversible amnesia. The memories are state or position dependent and can therefore be retrieved when the person is in a particular state or position (Figure 8-1). This information is not available in the normal conscious state, and the body's protective mechanisms keep us away from the positions that our mind-body awareness construes as painful or traumatic.

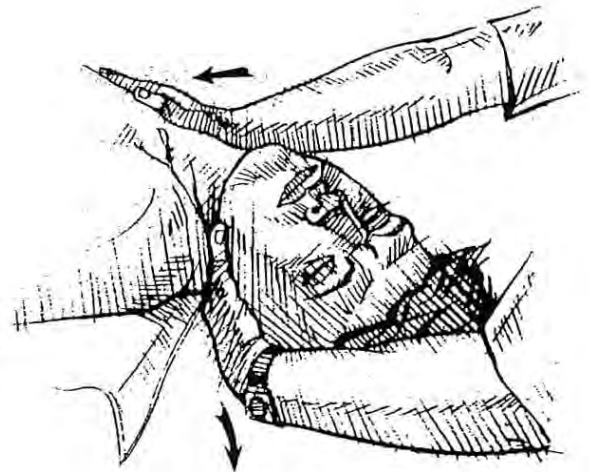


Figure 8-1. Myofascial release can move the structure into a significant position, which can elicit the physiologic responses, emotional feelings, and intellectualizations that occurred at the moment of trauma.

It has been demonstrated consistently that when a myofascial release technique takes the tissue to a significant position, or when myofascial unwinding allows a body part to assume a significant position three-dimensionally in space, the tissue not only changes and improves, but also memories, associated emotional states, and belief systems rise to the conscious level. This awareness through the positional reproduction of a past event or trauma allows the individual to grasp the previously hidden information that may be creating or maintaining symptoms or behavior that deter improvement. With the information now at the conscious level, the individual is in a position to learn what holding or bracing patterns have been impeding progress. This release of the tissue, emotions, and hidden information creates an environment for change that is both consistent and effective.

The physician or therapist using the myofascial unwinding process acts as a facilitator, following the body's inherent motions. When a significant position is attained, the craniosacral rhythm will shut down into a still point. During this still point a reversible amnesia surfaces, replaying all the physiologic responses, memories, and emotional states that occurred during a past traumatic event. This dissociation, or reversible amnesia is a "double-conscious state."⁷ In other words, what is learned or remembered at the time of trauma is dependent on the psychophysiologic state of the individual at the time of the experience. This dissociation, or block, between the conscious and subconscious minds is the source of many poor or temporary therapy results. Myofascial release and myofascial unwinding bring the tissue or body part into a position to allow the individual to be fully aware of this divided consciousness. Reactivating the conditions and the resultant physiologic responses during which they were acquired by this flashback phenomenon allow for conscious awareness and then the choice to change.

New neurobiologic research and Selye's classic work^{2,3} are concerned with the phenomenon of state-dependent memory, learning, and behavior. State-dependent memory, learning, and behavior is the general class of learning that takes place in all complex organisms that have a cerebral cortex and a limbic-hypothalamic system, and pavlovian and skinnerian conditioning are specific varieties of it.¹

Memory and learning of all higher organisms fall into two classes of internal responses:

1. There is a memory trace on the molecular-cellular-synaptic level.^{4,5}
2. An involvement of the amygdala and hippocampus of the limbic-hypothalamic system in processing and encoding, and recall of the specific memory trace may be located elsewhere in the brain.^{6,7}

The limbic-hypothalamic system is the central core to Selye's general adaption syndrome, the three stages of which, the alarm reaction, the stage of resistance, and the stage of exhaustion, take on a profound significance.

The hormones that are responsible for the retention of memory, epinephrine and norepinephrine, are released during the alarm stage by the activation of the sympathetic branch of the autonomic nervous system. The state or position the person is in at the moment of trauma is encoded into the system as the person progresses into the stage of resistance. The system adapts and develops strategies to protect itself from further trauma, fear, or memories by avoiding those three-dimensional positions. The emotions communicate this mind-body information through its network by way of the neuropeptides. This creates a vicious cycle of interplay among the endocrine, immune, and autonomic neuromyofascial systems, and the neuropeptides.

If this cycle continues too long, the person enters the exhaustion stage, in which the body's defense mechanisms expend enormous amounts of energy, thereby depleting one's reserve and perpetuating or enlarging the symptom complex.

Selye frequently described this type of resistance as being "stuck in a groove," something we have all experienced. When something familiar happens we react subconsciously in a habitual pattern before we can consciously be aware of it to control it. For example, if you were injured in a car accident, every time you see a car coming too fast you tighten and brace against the possible impact. People replay these incidents and the automatic, habitual bracing patterns associated with them subconsciously, until these hidden memories and learned behaviors are brought to the surface. Myofascial unwinding brings this information to a conscious level, allowing patients to experience it and let go.

Why do not normal bodily movements or daily activities reproduce these memories, emotions, and outdated beliefs? I believe that these positions represent fear, pain, or trauma. In an attempt to protect itself from further injury, the subconscious does not allow the body to move into

positions that reenact the microevents and important microcognitions essential for lasting change. The body then develops strategies or patterns to protect itself. These subconscious holding patterns eventually form specific muscular tone or tension patterns, and the fascial component then tightens into these habitual positions of strain as a compensation to support the misalignment that results. Therefore, the repeated postural and traumatic insults of a lifetime, combined with the tensions of emotional and psychologic origin, result in tense, contracted, bunched, and fatigued fibrous tissue.

A discrete area of the body may become so altered by its efforts to compensate and adapt to stress that structural and, eventually, pathologic changes become apparent. Researchers have shown that the type of stress involved can be entirely physical (e.g., repetitive postural strain such as that adopted by a dentist or hairdresser) or purely psychic (e.g., chronic repressed anger).

More often than not a combination of mental and physical stresses alters the neuromyofascial and skeletal structures, creating an identifiable physical change, which itself generates further stress, such as pain, joint restriction, general discomfort, and fatigue. A chronic stress pattern produces long-term muscular contraction, which, if prolonged, causes energy loss, mechanical inefficiency, pain, cardiovascular pathology, and hypertension.

Working in reverse, myofascial release and myofascial unwinding release the fascial tissue restrictions, thereby altering the habitual muscular response and allowing the positional, reversible amnesia to surface, producing emotions and beliefs that are the cause of the holding patterns and ultimate symptoms. Thus it is important for the therapist to quiet his or her mind and feel the inherent motions. Quietly following the tissue or body part three-dimensionally along the direction of ease takes the patient into the significant restrictions or positions. With myofascial unwinding, the therapist eliminates gravity from the system. This unloading of the structure allows the body's righting reflexes and protective responses to temporarily suspend their influence. The body then can move into positions that allow these state- or position-dependent physiologic or flashback phenomena to reoccur. As this happens within the safe environment of a treatment session, the patient can facilitate the body's inherent self-correcting mechanism to obtain improvement.

The myofascial release approach is more than just an assemblage of techniques. Instead, it creates a whole-body awareness allowing the health professional to facilitate change, growth, and the possibility for a total resolution of restrictions, emotions, and belief systems that impede patient progress.

REFERENCES

- ¹ Rossi EL. From mind to molecule: a state-dependent memory, learning, and behavior theory of mind-body healing. *Advances* 1987;4(2):46-60.
- ² Selye H. *The stress of life*. New York: McGraw-Hill, 1976.
- ³ Selye H. History and present status of the stress concept. In: Goldberger L, Breznitz S, eds. *Handbook of stress*. New York: MacMillan, 1982:7-20.
- ⁴ Hawkins R, Kandel E. Steps toward a cell-biological alphabet for elementary forms of learning. In: Lynch G, McGaugh J, Weinberger N, eds. *Neurobiology of learning and memory*. New York: Guilford Press, 1984:384-404.
- ⁵ Rosenzweig M, Bennett E. Basic processes and modulatory influences in the stages of memory formation. In: Lynch G, McGaugh J, Weinberger N, eds. *Neurobiology of learning and memory*. New York: Guilford Press, 1984:263-288.
- ⁶ Mishkin M, Petri H. Memories and habits: some implications for the analysis of learning and retention. In: Squire S, Butters N, eds. *Neuropsychology of memory*. New York: Guilford Press, 1984:287-296.
- ⁷ Thompson R, Clark G, Donegan N, Lavond D, Lincoln J, Madden IV J, Mamounas L, Mauk M, McCormick D, Thompson J. Neuronal substrates of learning and memory: a "multiple-trace" view. In: Lynch G, McGaugh J, Weinberger N, eds. *Neurobiology of learning and memory*. New York: Guilford Press, 1984:137-164.